

Claims

1. A method of controlling a real-time media session, comprising:

sending first signaling from first user equipment via a serving access network of the first user equipment to a first media communication server in response to a user's action during an established real-time media session;

sending second signaling from the first media communication server towards the first user equipment;

sending third signaling from the first media communication server towards second user equipment; and

sending, immediately after one of the first, the second and the third signaling, dummy media traffic from the first media communication server towards the first and second user equipment, in order to trigger a dedicated-channel setup for at least one of the first and second user equipment in their respective serving access networks prior to beginning an actual user media stream from the first user equipment.

2. The method according to claim 1, comprising:

setting an amount of dummy data, such that the dummy data and the first signaling data together exceed a threshold level for triggering the dedicated-channel setup.

3. The method according to claim 1 comprising:

sending, immediately following the one of the first, the second and the third signaling, dummy media traffic only if a session inactivity time prior to the first

signaling exceeds a certain threshold.

4. The method according to claim 1, for a packet-mode voice communication, comprising:

 sending said first signaling in response to detecting in the first user equipment activation of a push-to-talk pressel.

5. The method according to claim 1, wherein one of said first and second signaling comprises one of a Session Initiation Protocol (SIP) message, a Real-time Transport Control Protocol (RTCP) message, a SIP REFER Request, a SIP INVITE Request, a RTCP Floor Request, and a RTCP Floor Taken message.

6. The method according to claim 1, wherein the real-time media service is one of a push-to-talk service over cellular and a corresponding packet-mode voice communication service of a client-server type, the real-time media stream is packet-mode speech, and at least one of the serving access networks comprises a radio access network of a wideband code division multiple access type.

7. A method of controlling a real-time media session, comprising:
 establishing a real-time media session between first user equipment and second user equipment via a serving access network of the first user equipment, via at least a first media communication server, and via a serving access network of the second user equipment; and

sending, by one of the media communication server and a support node in a packet-switched core network during inactive periods of the real-time media session, dummy media towards at least one of the first and second user equipment in order to reset an inactivity timer of a common channel state in the serving access network of the respective user equipment and to thereby prevent the respective user equipment from going to an idle state.

8. The method according to claim 7, further comprising:

monitoring the media activity of the real-time media session in one of the first media communication server and the support node; and

if no media activity is detected in the real-time media session for a predetermined period of time, sending said dummy media traffic from the one of the first media communication server and the support node towards at least one of the first and second user equipment.

9. The method according to claim 7, comprising sending said dummy media traffic to said at least one of the first and second user equipment only if the respective user equipment is located in an access network in which a dedicated channel setup can be triggered by dummy media traffic.

10. The method according to claim 9, comprising notifying by the respective user equipment that it is located in an access network in which a dedicated channel setup can be triggered by dummy media traffic.

11. The method according to claim 7, wherein the real-time media service is one of a push-to-talk service over cellular and a corresponding packet-mode voice communication service of a client-server type, the real-time media stream is packet-mode speech, and at least one of the serving access networks comprises a radio access network of a wideband code division multiple access type.

12. The method according to claim 7, wherein the packet-switched core network is a GPRS (General Packet Radio Service) type core network, and wherein the support node comprises one of a serving GPRS service node and a gateway GPRS service node.

13. A media communication server for providing real-time media sessions between user equipment located in one or more access networks, wherein:

the media communication server is configured to receive first signaling sent by first user equipment via a serving access network of the first user equipment in response to user's action during an real-time media session established between the first user equipment and second user equipment;

the media communication server is configured to send second signaling towards the first user equipment upon receiving said first signaling;

the media communication server is configured to send third signaling towards the second user equipment upon receiving said first signaling; and

the media communication server is configured to send, immediately following

one of the first, second, and third signaling, dummy media traffic towards one of the first and second user equipment in order to trigger a dedicated channel setup for the one of the first and the second user equipment in a respective serving access network prior to beginning an actual user media stream from the first user equipment.

14. The media communication server according to claim 13, wherein one of said first and the second signaling comprises one of a Session Initiation Protocol (SIP) message, a Real-time Transport Control Protocol (RTCP) message, a SIP REFER Request, a SIP INVITE Request, a RTCP Floor Request, and a RTCP Floor Taken message.

15. The media communication server according to claim 13, wherein the media server is arranged to send said dummy media traffic from the first media server to the one of the first and the second user equipment only if these are located in an access network in which a dedicated channel setup can be triggered by dummy media traffic.

16. The media communication server according to claim 13, wherein the real-time media service is one of a push-to-talk service over cellular and a corresponding packet-mode voice communication service of a client-server type, the real-time media stream is packet-mode speech, and at least one of the serving access networks comprises a radio access network of a wideband code division multiple access type.

17. The media communication server according to claim 13, wherein the media communication server is configured to send dummy media traffic to the first and/or second user equipment only if the session inactivity prior to first signaling exceeds a certain threshold, in order to limit the amount of unnecessary dummy data sent.

18. A media communication server for providing real-time media sessions between sets of user equipment located in one or more access networks, wherein:

the media communication server is configured to establish a real-time media session between first user equipment and second user equipment via a serving access network of the first user equipment and via a serving access network of the second user equipment; and

the media communication server is configured to send, during inactive periods of the real-time media session, dummy media towards at least one of the first and second user equipment in order to reset an inactivity timer of a common channel state in the serving access network of the respective user equipment and to thereby prevent the respective user equipment from going to an idle state.

19. The media communication server according to claim 18, wherein the media communication server is configured to monitor media activity of the real-time media session in one of the first media communication server and the support node, and if no media activity is detected in the real-time media session for a predetermined period of time, to send said dummy media traffic.

20. The media communication server according to claim 18, wherein the media server is arranged to send said dummy media traffic from the first media server to the second user equipment only if the second user equipment is located in an access network in which a dedicated channel setup can be triggered by dummy media traffic.

21. The media communication server according to claim 18, wherein the real-time media service is one of a push-to-talk service over cellular and a corresponding packet-mode voice communication service of a client-server type, the real-time media stream is packet-mode speech, and at least one of the serving access networks comprises a radio access network of a wideband code division multiple access type.

22. A support node for a packet-switched core network, wherein:

the support node is configured to establish a real-time media connection between user equipment located in a radio access network and a media communication server; and

the support node is configured to send, during inactive periods of the real-time media connection, dummy media towards the user equipment in order to reset an inactivity timer of a common channel state in the radio access network and to thereby prevent the respective user equipment from going to an idle state.

23. The support node according to claim 22, wherein the real-time media service is one of a push-to-talk service over a cellular and a corresponding packet-

mode voice communication service of a client-server type, the real-time media stream is packet-mode speech, and at least one of the serving access networks comprise a radio access network of a wideband code division multiple access type.

24. The support node according to claim 22, wherein the packet-switched core network is a GPRS (General Packet Radio Service) type core network, and wherein the support node comprises one of a serving GPRS support node and a gateway GPRS support node.

25. User equipment for a communications system, wherein:

the user equipment is configured to establish a real-time media session via an access network and a media communication server;

the user equipment is configured to send a first signaling via the access network to the media communication server in response to user's action during the established real-time media session; and

the user equipment is configured to send immediately following the first signaling dummy media traffic to the media communication server in order to trigger a dedicated channel setup for the user equipment in the access network of the first user equipment prior to beginning an actual user media stream.

26. The user equipment according to claim 25 for a packet-mode voice communication, wherein the user equipment is configured to send said first signaling when detecting an activation of a push-to-talk pressel.

27. The user equipment according to claim 25, wherein said first signalling comprises one of a Session Initiation Protocol (SIP) message, a Real-time Transport Control Protocol (RTCP) message, a SIP REFER Request, a SIP INVITE Request, and a RTCP Floor Request.

28. The user equipment according to claim 25, wherein the real-time media service is one of a push-to-talk service over a cellular and a corresponding packet-mode voice communication service of a client-server type, the real-time media stream is packet-mode speech, and the access network comprises a radio access network of a wideband code division multiple access type.

29. The user equipment according to claim 25, wherein an amount of dummy data is such that the dummy data and the first signaling data together exceed a threshold level for triggering the dedicated channel setup.

30. The user equipment according to claim 29, wherein the user equipment is configured to keep the first signaling and the dummy data in a transmission buffer until the triggered dedicated channel setup has been completed, and to send the first signaling and the dummy data over the dedicated channel.

31. The user equipment according to claim 29, wherein the user equipment is configured to send the first signaling completely before sending the dummy data and

triggering the dedicated channel setup.

32. The user equipment according to claim 25, wherein the user equipment is configured to send dummy media traffic to the media communication server only if the session inactivity time prior to sending the first signaling exceeds a certain threshold, in order to limit the amount of unnecessary dummy data sent.